

Day : Sunday  
 Date: 9/22/2002  
 Time: 15:37:11

## PALM INTRANET

### Inventor Name Search Result

Your Search was:

Last Name = HIRAO

First Name = HARUNORI

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<a href="#">09644354</a>	Not Issued	041	08/23/2000	METHOD FOR PREVENTING PLATE TYPE HEAT EXCHANGER FROM BLOCKAGE	HIRAO, HARUNORI
<a href="#">09919024</a>	Not Issued	030	07/31/2001	METHOD FOR STARTING UP REACTOR	HIRAO, HARUNORI
<a href="#">09724468</a>	Not Issued	041	11/29/2000	METHOD FOR PREVENTING EFFLUENT GAS PIPE FROM BLOCKING	HIRAO, HARUNORI
<a href="#">09780787</a>	Not Issued	041	02/09/2001	METHOD FOR ABSORBING ACRYLIC ACID AND METHOD FOR PURIFYING ACRYLIC ACID	HIRAO, HARUNORI
<a href="#">10211040</a>	Not Issued	019	08/02/2002	METHOD FOR ABSORBING ACRYLIC ACID AND METHOD FOR PURIFYING ACRYLIC ACID	HIRAO, HARUNORI

Inventor Search Completed: No Records to Display.

Search Another:	Last Name <input type="text" value="hirao"/>	First Name <input type="text" value="harunori"/>
Inventor	<input type="button" value="Search"/>	

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Terms	Documents
explosi\$7 and (4111983.pn. or 4333858.pn. or 4410858.pn. or 4415752.pn.)	0

**Database:** [US Patents Full-Text Database](#)[US Pre-Grant Publication Full-Text Database](#)[JPO Abstracts Database](#)[EPO Abstracts Database](#)[Derwent World Patents Index](#)[IBM Technical Disclosure Bulletins](#)**Search:**[Refine Search](#)[Recall Text](#)[Clear](#)

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**Search History**

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**DATE:** Sunday, September 22, 2002 [Printable Copy](#) [Create Case](#)

Set Name Query  
side by sideHit Count Set Name  
result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L13    explosi\$7 and (4111983.pn. or 4333858.pn. or 4410858.pn. or  
          4415752.pn.)

0    L13

L12    L11 and explosi\$7

4    L12

*DB=USPT; PLUR=YES; OP=ADJ*

L11    L10 and acrylic acid

5    L11

L10    L9 and oxidat\$9 reactor

9    L10

L9    L8 and shell and tube reactor

58    L9

L8    l6

66744    L8

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L7    L6 and shell\$2 tube \$2 reactor

0    L7

L6    560/\$ or 562/\$

79429    L6

L5    L4 and continuous

0    L5

L4    L3 and benzoyl chloride

2    L4

L3    L2 and benzotrichloride

2    L3

L2    L1 and pivalic acid

7    L2

L1    562/840 or 562/856 or 562/866 or 562/861 or 562/855

620    L1

END OF SEARCH HISTORY

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## Search Results -

Terms	Documents
L9 and oxidat\$9 reactor	9

**Database:**

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**Search:**

L10

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## Search History

**DATE:** Sunday, September 22, 2002 [Printable Copy](#) [Create Case](#)**Set Name** **Query**  
side by side**Hit Count** **Set Name**  
result set*DB=USPT; PLUR=YES; OP=ADJ*

<u>L10</u>	L9 and oxidat\$9 reactor	9	<u>L10</u>
<u>L9</u>	L8 and shell and tube reactor	58	<u>L9</u>
<u>L8</u>	l6	66744	<u>L8</u>

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

<u>L7</u>	L6 and shell\$2 tube \$2 reactor	0	<u>L7</u>
<u>L6</u>	560/\$ or 562/\$	79429	<u>L6</u>
<u>L5</u>	L4 and continuous	0	<u>L5</u>
<u>L4</u>	L3 and benzoyl chloride	2	<u>L4</u>
<u>L3</u>	L2 and benzotrichloride	2	<u>L3</u>
<u>L2</u>	L1 and pivalic acid	7	<u>L2</u>
<u>L1</u>	562/840 or 562/856 or 562/866 or 562/861 or 562/855	620	<u>L1</u>

END OF SEARCH HISTORY

## WEST

## Search Results - Record(s) 1 through 9 of 9 returned.

 1. Document ID: US 6417376 B1

L10: Entry 1 of 9

File: USPT

Jul 9, 2002

US-PAT-NO: 6417376

DOCUMENT-IDENTIFIER: US 6417376 B1

TITLE: Selective oxidation process and catalyst therefor

              2. Document ID: US 6362367 B1

L10: Entry 2 of 9

File: USPT

Mar 26, 2002

US-PAT-NO: 6362367

DOCUMENT-IDENTIFIER: US 6362367 B1

TITLE: Preparation of organic acids

              3. Document ID: US 6274743 B1

L10: Entry 3 of 9

File: USPT

Aug 14, 2001

US-PAT-NO: 6274743

DOCUMENT-IDENTIFIER: US 6274743 B1

TITLE: Process for the preparation of butanediol, butyrolactone and tetrahydrofuran

              4. Document ID: US 6239292 B1

L10: Entry 4 of 9

File: USPT

May 29, 2001

US-PAT-NO: 6239292

DOCUMENT-IDENTIFIER: US 6239292 B1

TITLE: Process for preparing gamma-butyrolactone, butane-1,4-diol and tetrahydrofuran

5. Document ID: US 6194588 B1

L10: Entry 5 of 9

File: USPT

Feb 27, 2001

US-PAT-NO: 6194588

DOCUMENT-IDENTIFIER: US 6194588 B1

TITLE: Method for production of maleic anhydride

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KOMC](#) | [Draw Desc](#) | [Image](#) 6. Document ID: US 6118021 A

L10: Entry 6 of 9

File: USPT

Sep 12, 2000

US-PAT-NO: 6118021

DOCUMENT-IDENTIFIER: US 6118021 A

TITLE: Membrane process for argon purging from vinyl acetate reactors

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [Claims](#) | [KOMC](#) | [Draw Desc](#) | [Image](#) 7. Document ID: US 6100410 A

L10: Entry 7 of 9

File: USPT

Aug 8, 2000

US-PAT-NO: 6100410

DOCUMENT-IDENTIFIER: US 6100410 A

TITLE: Process for the production of 1,4-butanediol, .gamma.-butyrolactone and tetrahydrofuran

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KOMC](#) | [Draw Desc](#) | [Image](#) 8. Document ID: US 6084125 A

L10: Entry 8 of 9

File: USPT

Jul 4, 2000

US-PAT-NO: 6084125

DOCUMENT-IDENTIFIER: US 6084125 A

TITLE: Process for producing aliphatic acids using a reactor system having a shell and tube reactor configuration to force circulation of reaction liquid[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KOMC](#) | [Draw Desc](#) | [Image](#) 9. Document ID: US 4203906 A

L10: Entry 9 of 9

File: USPT

May 20, 1980

US-PAT-NO: 4203906

DOCUMENT-IDENTIFIER: US 4203906 A

TITLE: Process for catalytic vapor phase oxidation

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#) [KDDC](#) [Draw Desc](#) [Image](#)

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Terms	Documents
L9 and oxidat\$9 reactor	9

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